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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Thom et al.
Serial No. : 09/913,944
Filed : February 17, 2000
Title : Biocompatible Material With A Novel Functionality

Examiner: n/a

Art Unit: n/a



I hereby certify that this paper is being deposited with the United States Postal Service, as first class mail, in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231, on February 19, 2002.

Robert B. Smith

Reg. No. 28,538

Robert B. Smith
Signature

February 19, 2002
Date

February 19, 2002

Assistant Commissioner for Patents
Washington, DC 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the duty of disclosure provisions of 37 C.F.R. § 1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor is this Information Disclosure Statement a representation that a search has been made.

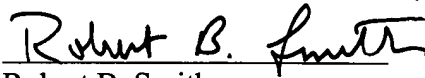
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- (1) Form PTO-1449;
- (2) Copies of publications.

This Information Disclosure Statement is filed under 37 C.F.R. § 1.97(b) before the latter of three months after the U.S. Patent application filing date or the first Office Action on the merits. Accordingly, no fee or certification is required.

The Commissioner is authorized to charge any additional fee required or credit any overpayment for the Information Disclosure Statement to Skadden, Arps, Slate, Meagher & Flom LLP Deposit Account No. 19-2385.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Robert B. Smith", is written over a horizontal line.

Robert B. Smith

PTO Registration No. 28,538

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FORM PTO-1449 (Modified)

ATTY. DOCKET NO.
P405 US00SERIAL NO.
09/913,944

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT(S)' INFORMATION DISCLOSURE STATEMENT

APPLICANT(s): Thom et al.

(Use several sheets if necessary)

Intl. FILING DATE
02/17/00GROUP ART UNIT
n/a

U.S. PATENT DOCUMENTS

EXAM'R INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,128,170	07/1992	Matsuda et al.			
		5,512,474	04/1996	Clapper et al.			
		5,593,814	01/1997	Matsuda et al.			
		5,776,748	07/1998	Singhvi et al.			
		5,512,329	04/1996	Guire et al.			

FOREIGN PATENT DOCUMENTS

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO
	WO 97/18904	05/1997	International				
	WO 97/46590	12/1997	International				
	WO 98/23306	06/1998	International				
	WO 98/47948	10/1998	International				
	WO 98/00457	01/1998	International				
	WO 99/48975	09/1999	International				

OTHER DOCUMENTS (Include Author, Title, Date, Pertinent Pages, etc.)

	Zhang et al., "Proteins and cells on PEG immobilized silicon surfaces," Biomaterials 19, pp. 953-960 (January 1988)
	Desai & Hubbell, "Solution technique to incorporate polyethylene oxide and other water-soluble polymers into surfaces of polymeric biomaterials," Biomaterials Vol. 12, pp. 144-153 (March 1991)
	Desai & Hubbell, "Biological responses to polyethylene oxide modified polyethylene terephthalate surfaces, Journal of Biomedical Materials Research, Vol. 25, pp829-843 (1991)
	Sofia et al., "Poly(ethylene oxide) Grafted to Silicon Surfaces: Grafting Density and Protein Adsorption," Macromolecules Vol. 31, pp. 5059-5070 (July 1998)
	Litauzski et al., "Surfaces modified with PEO by the Williamson reaction and their affinity for proteins," Journal of Biomedical Materials Research, Vol. 35, pp. 1-8 (1997)

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EXAM'R INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,973,493	11/1990	Guire			
		5,217,492	06/1993	Guire et al.			
		5,263,992	11/1993	Guire			
		5,741,881	04/1998	Patnaik			
		5,330,911	07/1994	Hubbell			

FOREIGN PATENT DOCUMENTS

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						YES	NO
	EP 633 031	01/1995	Europe				

OTHER DOCUMENTS (Include Author, Title, Date, Pertinent Pages, etc.)

	Hsiue et al., "Platelet adhesion and cellular interaction with poly(ethylene oxide) immobilized onto silicone rubber membrane surfaces," Journal of Biomaterials Science Polymer Edn., Vol. 7, No. 10, pages 839-855 (1996)
	Park et al., "Integration of surface modification and 3D fabrication techniques to prepare patterned poly(L-lactide) substrates allowing regionally selective cell adhesion," J. of Biomaterials Science Polymer Edn., Vol. 9, No. 2, pages 89-110 (1998)
	Roberts et al., "Using Mixed Self-Assembled Monolayers Presenting RGD and (EG) ₃ OH Groups To Characterize Long-Term Attachment of Bovine Capillary Endothelial Cells to Surfaces, J. Am. Chem. Soc. V. 120, pp. 6548-6555 (June 1998)
	Tziampazis et al., "PEG-variant biomaterials as selectively adhesive protein templates: model surfaces for controlled cell adhesion and migration," Biomaterials Vol. 21, pp. 511-520 (2000)
	DeFife et al., "Photochemically immobilized polymer coatings: effects on protein adsorption, cell adhesion, and leukocyte activation," J. Biomaterial Sciences Polymer Edn., Vol. 10, No. 10, pp. 1063-1074 (1999)

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		Devanand et al., "Asymptotic Behavior and Long-Range Interactions in Aqueous Solutions of Poly(ethylene oxide)," Macromolecules 24, pp. 5943-5947 (1991)
		Harris, "Introduction to Biotechnical and Biomedical Applications of Poly(Ethylene Glycol)," Poly(Ethylene Glycol) Chemistry: Biotechnical and Biomedical Applications, Plenum Press (1992), pp. 1-13
		Luckham, "Recent advances in polymers at surfaces: the steric effect," Colloid & Interface Science 1:39-47 (1996)
		Noh et al., "Chemical modification and photograft polymerization upon expanded poly(tetrafluoroethylene)," J. Biomedical Sci. Polymer Edn., Vol. 9, No. 5, pp. 407-426 (1998)
		Herbert et al., "Micropatterning gradients and controlling surface densities of photoactivatable biomolecules on self-assembled monolayers of oligo(ethylene glycol) alkanethiolates," Chemistry & Biology, 4:731-737 (October 1997)
		Wesslén et al., "Protein adsorption of poly(ether urethane) surfaces modified by amphiphilic and hydrophilic polymers," Biomaterials Vol. 15, No. 4, pp. 278-284 (1994)
		Thom et al., "Optimizing Cell-Surface Interactions by Photografting of Poly(ethylene glycol)," American Chemical Society, 2000
		Gombotz et al, "Protein adsorption to poly(ethylene oxide) surfaces," Journal of Biomedical Materials Research, Vol. 25, pp. 1547-1562 (1991)

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		DeFife et al., "Effects of photochemically immobilized polymer coatings on protein adsorption, cell adhesion, and the foreign body reaction to silicone rubber," J. Biomedical Materials Research, Vol. 44, pp. 298-307 (1999)
		Bergström et al., "Reduction of fibrinogen adsorption on PEG-coated polystyrene surfaces," Journal of Biomedical Materials Research, Vol. 26, pp. 779-790 (1992)
		Thom, "Membrane-Solute Interaction in Microporous Polymer Membranes," Ph.D. Thesis, Danmarks Tekniske Universitet 1999

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